September 28, 2016

Honorable Jed S. Rakoff
United States District Judge
Southern District of New York
United States Courthouse
500 Pearl Street
New York, NY 10007

Re: Andrew Caspersen

Dear Judge Rakoff:

Much of my professional career has been devoted to trading stock options. For 13 years, as Managing Director of Tiger Ventures Capital, I hired, trained, financed and managed more than 20 option traders, overseeing their portfolios and managing risk. My resume is attached as an exhibit to this letter. At the request of his counsel, I have reviewed Andrew Caspersen's trading records with special attention to the period December 4, 2015, to March 4, 2016.[1] As discussed below, Mr. Caspersen's trading lacked rationality. It was a course of conduct that could lead only to financial ruin.

Mr. Caspersen's trading in the period December 4, 2015, to March 4, 2016, had these qualities. First, he almost invariably bought puts at or near the money on the S&P 500. He was betting that the stock market would decline in value. The trading involved no study of the stock market or of individual companies. These were basically coin flips. Second, most of his trades were "all in." If he had \$10 million in his trading account, he bet \$10 million or close to it. When the account grew to more than \$100 million, he bet \$100 million or close to it. Third,

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1 During the period December 4, 2015, to March 4, 2016, Mr. Caspersen was trading through Interactive Brokers, which offers daily reports that are more detailed than those of his prior broker, Fidelity Investments, and therefore permit closer scrutiny.

almost all of his trades were in weekly options, the shortest duration available. He was not looking to wait three months to see if the market would move in his favor.

Specifically, Mr. Caspersen ended 2015 with about \$9 million in his trading account. More than 99 percent of that total was invested in weekly at-the-money puts on the S&P 500. That meant that the market had to decline in a week's time or his account would be wiped-out. Mr. Caspersen's bet proved correct; the market declined in early January, and his account increased substantially in value. His response was to roll over his contracts, buying puts that would expire the next week. Rolling is not uncommon for an options trader, but typically a trader keeps a constant strike price or maintains a constant dollar risk. Mr. Caspersen did neither: he rolled into puts with a lower strike price, owning more contracts and keeping his entire account at complete risk. In effect, he wanted more chips on the table.

Mr. Caspersen continued this pattern of rolling into complete risk week after week. By January 13, as the market continued to decline, his account had grown to more than \$68 million, and on February 11, to more than \$112 million. (Intra-day on February 11, the account's value was \$127.3 million.) What should have been clear to any rational trader, however, was that even a small upward move in the S&P would have dire consequences for the account. That is what happened from February 23 to February 25, when a 1.7 percent rise in the S&P (from 192.32 to 195.53 for the SPY ETF) resulted in a 55 percent decline in his account (from \$87.5 million to \$39.6 million). The same thing occurred on March 1: the market moved up 2.4 percent (from 193.56 to 198.11), and his account declined 74 percent (from \$63.9 million to \$16.4 million). Indeed, his daily account changes for the first four days of March were down 74.3 percent, down 62.0 percent, down 23.7 percent, and down 73.7 percent, resulting in a four-day cumulative loss of 98.1 percent. He was left with almost nothing.

In probability theory, there is a model called the Martingale. A gambler using the Martingale method doubles the amount at risk on each subsequent bet until he eventually wins a bet. If his first bet is $1 and he loses, he bets $2. If he loses the second bet, he bets $4. And so on until he wins a bet and makes a $1 profit. Mr. Caspersen's "strategy" might be called a "Reverse Martingale." He continually risked all of his capital until he lost it all. The reality is that markets do not continually go down. If one assumes that the market is a random walk, the chance of there being 12 consecutive losing weeks (December 4 to March 4) is 4,096 to 1 (2^{12}). This has never occurred in the history of the stock market. All of this is to say that employing a Reverse Martingale strategy when the market will inevitably go up at some time is a recipe for inevitably losing everything.

I am familiar with rogue traders who attempt to offset their losses with progressively larger trades, but their intent is to stop when they make back what they lost. For Mr. Caspersen, it was never about getting back to even or taking a profit. No matter how well or how poorly he was doing, it was always all in, all the time, with no stopping point. When you continually purchase at-the-money put options with all of your capital in a gyrating market, there is only one possible outcome: the complete loss of your capital. Only a person in an irrational state would embark on (and remain on) the path Mr. Caspersen pursued.

I have looked at two other time periods of Mr. Caspersen's trading.[2] On November 13, 2015, Mr. Caspersen had invested more than $20 million in S&P 500 puts. From November 13 to November 18, the S&P rose 3 percent (from 202.54 to 208.73 for the SPY ETF), and his account fell 96 percent to $1.2 million.

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[2] The first is a period in November 2015 after Mr. Caspersen deposited $25 million in his account. (I am told that this money was fraudulently obtained.) The second is a period in November 2012 when Mr. Caspersen was trading through Interactive Brokers and therefore detailed records are available.

In November 2012, Mr. Caspersen experienced a similar wipeout. On November 1, 2012, he began the day with more than $2.4 million in cash. In the first hour of trading, he invested $2.3 million in S&P puts that expired the next day. He lost $400,000 within an hour, and liquidated the trade. Minutes later, he invested in Apple calls expiring the next day. He then liquidated that position, losing more than $600,000. In all, he made five trades that day and lost $1.25 million, half of his capital. November 2, 2012, was no better. He invested his remaining capital in S&P calls that expired that day. The market went down, and he ended the day with less than $89,000 in the account. In two days, his account had lost 99 percent of its value. If the definition of insanity is doing the same thing over and over again and expecting different results, then Mr. Caspersen's trading was not that of a sane person. I do not mean that in any legal sense of the word, but no rational trader would trade in the way that Mr. Caspersen did.

I should add one other point. During the month of January 2016, Mr. Caspersen paid commissions of $444,579 and had other execution costs of as much as $900,000, well in excess of 10 percent of the capital with which he began the month. In short, the casino at which he was gambling -- the options market -- had a high cost of admission.

In sum, in all my years in the business, I have never seen anyone trade options the way that Andrew Caspersen did. His was not profit-seeking trading. He never took money off the table. Buying options in the way that he did may have satisfied some psychological need, but he was certain to lose all of his money.

Sincerely,

Bruce A. Rosen